A Rubric for Technology Professional Development Developed by the Center for Information Development Michigan Technology Implementation Project Funded by the Michigan Department of Education

This rubric was designed to provide a framework for school professional development staff, administrators, and teachers to design, identify, or evaluate professional development programs focused on integrating technology into the curriculum.

<u>How was this rubric developed</u>: This rubric was developed based on a comprehensive review of the literature on professional development for teachers, especially in the use of technology for educational purposes and a longitudinal empirical study of professional development for teachers.

<u>How to use this rubric</u>: This rubric does not list all factors that may have an impact on the effectiveness of professional development but those that were found to have a significant effect on teacher uses of technology for student learning. Professional development staff, administrators, and teachers can use this rubric as a guideline to design effective programs or assess existing programs when they need to select effective programs provided by external vendors. PD should, however, not be considered as an outside vendor issue. Effective PD relies on the school and district leadership as well. Thus this rubric is designed to assess the potential effectiveness of comprehensive PD efforts and programs, including components purchased from outside vendors and district/school efforts.

This tool is aligned with the National Staff Development Council's (NSDC) Standards for Staff Development but is specialized for professional development using technology to enhance learning. Therefore, this tool should be used in conjunction with the NSDC standards in guiding the assessment or design of professional development programs for integrating technology into the curriculum

This rubric includes five categories of indicators. Each category contains a set of factors that have been found to affect the effectiveness of professional development for technology integration. The whole rubric has one total score that indicates the overall effectiveness of a professional development program. To compute the total score of a given program, follow these steps outlined below:

- 1. Assign a score to each indicator based on your assessment of the program. Each indicator should a score of 1(poor), 2(adequate), or 3(excellent). For example, if a professional development program makes "technical or content expert available and easily accessible beyond formal PD sessions" to teachers, put a "3" inside the box after the indicator "Support" under the category "Context."
- 2. Add all indicator scores for each category;
- 3. Find the score corresponding to the range within which the resulting score from Step 2 falls;
- 4. Add all category scores to obtain the total rubric score.

How to interpret the final score.

If the final total score is less than 1, the PD program is poor and needs improvement If the final score is between 1 and 2, the PD program is adequate but has room for improvement If the final score is larger than 2, the PD program is excellent.

Category	Indicator	Poor (1)	Adequate (2)	Excellent (3)	Score
Context	The professional development should provide teachers with adequate resources and time to experience and experiment with district-supported technologies.				
	Resources	Limited access to technical and	Adequate but limited (in terms	Ample and convenient	
		curricula resources for teachers to	of availability and convenience)	access to technical and	
		experiment with on their own;	access to technical and	curricula resources so that	
		Policies and procedures for	curricula resources for teachers	teachers can experience and	
		accessing these resources not	to experiment with on their own;	experiment with technology	
		clearly communicated to teachers	Policies and procedures for accessing these resources are	on their own; Policies and procedures for accessing	
			somewhat communicated to	these resources are clearly	
			teachers	communicated to teachers	
	Support	Technical or content expert	Technical or content expert	Technical or content expert	
		available only on a limited basis or	available but inconveniently	available and easily	
		inconveniently located beyond	located beyond formal PD	accessible beyond formal PD	
		formal PD sessions	sessions	sessions	
	Time	Little or no time allocated as part of	Some time is scheduled as part	Ample time is scheduled as	
		PD for teachers to experiment with technology;	of PD for teachers to	part of PD for teachers to experiment with technology;	
		lecinology,	experiment with technology;	experiment with technology,	
		No time during work is allocated for	Some time during work is	Sufficient during work is	
		teachers to experiment with	allocated for teachers to	allocated for teachers to	
		technology	experiment with technology.	experiment with technology	
Category Score (add scores for each indicator to obtain the category score and enter it in the next cell)					
Weighted category score (find the weighted score corresponding to the range the category score falls Category Score Weighted Score Weighted Score Category Score Weighted Score Weight					
with in and e	nter it in the last ce	ell)		3-5 0.15	
				6-8 0.30 9 0.45	
				9 0.40	

Category	Indicator	Poor (1)	Adequate (2)	Excellent (3)	Score
Content	The professional development should focus on using technology to improve student learning. It should provide teachers				
	with solutions to specific problems they encounter in their professional life.				
	Content	Little or no connection to what	Some connection to what	Specific and deep	
	knowledge	teachers teach; no clear	teachers teach; adequately	connections to what teachers	
		demonstration of how technology	demonstrate how technology	teach; clearly demonstrates	
		can improve the teaching of subject	can improve the teaching of	how technology can be used	
		content	subject content	to improve the teaching of	
				subject content	
	Pedagogy	Unclear demonstration of how	Adequately demonstrates how	Clearly demonstrates how	
		technology can be used to improve	technology can be used to	technology can be used to	
	1	how teachers teach	improve how teachers teach	improve how teachers teach	
	Planning	Unclear demonstration of how	Adequately demonstrates how	Clearly demonstrates how	
		technology can be used to improve	technology can be used to	technology can be used to	
		how teachers plan their teaching	improve how teachers plan their	improve how teachers plan	
			teaching	their teaching	
	Classroom	Unclear demonstration of how	Adequately demonstrates how	Clearly demonstrates how	
	management	technology can be used to improve	technology can be used to	technology can be used to	
		classroom management	improve classroom	improve classroom	
	D () 1		management	management	
	Professional	Unclear demonstration of how	Adequately demonstrates how	Clearly demonstrates how	
	Productivity ²	technology can be used to improve	technology can be used to	technology can be used to	
		teacher professional productivity	improve teacher professional	improve teacher professional	
productivity productivity					
Category Score (add scores for each indicator to obtain the category score and enter it in the next cell)					
Weighted category score (find the weighted score corresponding to the range the category score falls with in and enter it in the last cell) Category Score Weighted Score Solution Score Weighted Score Category Score Weighted Score Solution Score Category Score Weighted Score Category Score C					
with in and e	nter it in the last ce	en)		8-13 0.54	
14-15 0.81					

 $^{^{1}}$ e.g., locating resources, diagnosing learning difficulties 2 e.g., communicating with parents, administrators, and peers, managing grades, processing homework etc.

Category	Indicator	Poor (1)	Adequate (2)	Excellent (3)	Score
Process	The professional development should aim at building learning communities among teachers and establish social				
Content	connections among teachers and the support staff so that they can offer help and support to each other.				
	Social	Provides few opportunities for	Provides some opportunities for	Provides ample opportunities	
	networking	informal interactions around	informal interactions around	for informal interactions	
		technology issues among teachers,	technology issues among	around technology issues	
		technical staff, and administrators	teachers, technical staff, and	among teachers, technical	
			administrators	staff, and administrators	
	Collaboration	Provides few opportunities for	Provides some opportunities for	Provides ample opportunities	
		collaboration around technology	collaboration around technology	for and encourages	
		issues among teachers, technical	issues among teachers,	collaboration around	
		staff, and administrators	technical staff, and	technology issues among	
			administrators	teachers, technical staff, and	
				administrators	
	Local expertise	No intention or efforts to develop	Some efforts to identify and	Purposefully identifies and	
		experts among teachers	develop experts among	develops experts among	
			teachers	teachers	
	Peer support	No incentive to encourage teachers	Some incentive to encourage	Strong incentive to	
		to provide assistance to their peers	teachers to provide assistance	encourage teachers to	
			to their peers	provide assistance to their	
				peers	
Category Score (add scores for each indicator to obtain the category score and enter it in the next cell)					_
	- ' '	he weighted score corresponding to the	e range the category score falls	Category Score Weighted Score	
with in and e	nter it in the last ce	ell)		4-6 0.19 7-10 0.38	
				11-12 0.57	

Category	Indicator	Poor (1)	Adequate (2)	Excellent (3)	Score
Process	The professional development program should be continuous, frequent, and conducted in settings that are similar to the				
	teaching context	s of the teachers.			
	Duration	One or few discrete sessions	Several connected sessions	A series of sessions that	
			that occur over at least a	continue over a period of	
			semester	time	
	Frequency	Sporadic, one or two sessions a	Frequent, at least once a month	Very frequent, more than	
		year		once a month	
	Location	Outside cutting-edge advanced labs	Settings with some technology	On-site, use technologies	
		that are quite unlike what the	that are available in the school	that are available to teachers	
		teachers may have in their			
		classroom or school			
Category Score (add scores for each indicator to obtain the category score and enter it in the next cell)					
Weighted category score (find the weighted score corresponding to the range the category score falls Category Score Weighted Score					
with in and e	with in and enter it in the last cell)				
		·		6-7 0.30 8-9 0.45	
				8-9 0.45	

Category	Indicator	Poor (1)	Adequate (2)	Excellent (3)	Score
Provider	The professional development should be provided by educational experts who understand technology or technology experts who understand education.				
	Technology expertise	Little experience with or knowledge of technology	Adequate experience with or knowledge of technology	Excellent command of technology	
	Content expertise	Little knowledge of curricula content involved	Adequate knowledge of curricula content involved	Excellent command of curricula content involved	
	Pedagogical expertise	Little instructional experiences or knowledge of pedagogy	Adequate instructional experiences or knowledge of pedagogy	Excellent instructional experiences or knowledge of pedagogy	
	Policy	Little knowledge of district/school policies and procedures related to technology	Adequate knowledge of district/school policies and procedures related to technology	Excellent knowledge of district/school policies and procedures related to technology	
Weighted ca	Category Score (add scores for each indicator to obtain the category score and enter it in the next cell)Weighted category score (find the weighted score corresponding to the range the category score falls with in and enter it in the last cell)Category Score Weighted Score 4-6 0.07 0.14 11-12 0.21				

Total score for	or rubric
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